WILDLIFE MANAGEMENT UNIT 13A - LASAL MOUNTAINS

Boundary Description

Grand and San Juan Counties - Boundary begins at the junction of Interstate 70 and the Green River; then south on the Green River to the Colorado River; then north on the Colorado River to Highway SR-191; south on SR-191 to the Big Indian road; east on this road to the Lisbon Valley road; east on this road to the Island Mesa road; east on this road to the Colorado state line; north on the state line to the Dolores River; northwest on this river to the Colorado River; northeast on this river to the Colorado state line; north on this line to I-70; west on I-70 to the Green River and beginning point.

Winter Range Description

The boundaries of this unit encompass a very large and varied area. The predominant vegetation in the northern part and along the western portion of the unit is a desert shrub type which receives little use by deer or elk. This lower country is inhabited mostly by desert bighorn and antelope. The deer and elk range is centered on and around the LaSal Mountains. From the bare talus peaks at 12,700 feet, the mountain levels off to a 8,000 foot plateau, then slopes gently down to the desert below at about 4,000 feet. Deer generally winter on the mesas at 8,000 feet or lower. North-facing slopes in steep canyons and the lower desert areas also provide some additional wintering areas. The 1967 range inventory (Coles and Pederson 1968) identified 450,240 acres of deer winter range, making up approximately 46% of the unit. Much of the winter range is within the pinyon-juniper type, where many range rehabilitation projects have been completed through the years. The desert shrub type, which comprises about 25% of the winter range, is used mostly during severe winters.

BLM administered land comprises 59% of the winter range on this herd unit. The Forest Service manages the higher mesas, which represent 19% of the winter range. State ownership is also substantial. The major use of the federal and state land is livestock grazing. There is currently limited activities pertaining to mining, oil, and gas drilling. Recreation and tourism is a major influence on the area, but most of this activity is concentrated in the lower desert areas, along the Colorado River and in National Parks. On private land around Moab, Castle Valley, Fisher Valley, and LaSal, there are farming and ranching operations.

Key Areas

Generally agreed upon key big game areas are: the Fisher Valley - Fisher Mesa area (USFS and BLM, approximately 2,900 acres), lower Castle Valley severe winter range (BLM and state, 3,800 acres), Upper Castle Valley and Porcupine Draw (USFS, 1,280 acres), Bromley Ridge (USFS, 1,000 acres), Black Ridge (BLM, 1,400 acres), Pole Canyon - Slaughter Flats - Buck Hollow (USFS, 9,500 acres) and North Beaver Mesa (USFS and BLM, 600 acres). In a published Manti-LaSal Forest Management Plan, these areas are identified as general big game winter range. No key winter range was identified on the Moab District.

The majority of the key areas identified are managed by the BLM or USFS. The Forest Service has range studies over all the key areas. Ecological site data (SVIM) is available for the studies on BLM administered land. All of the key areas studied are also grazed by domestic livestock. The BLM areas are generally grazed by cattle in spring (May - June). Fisher Valley also has fall and winter cattle use. North Beaver Mesa is grazed November to May 31. The Forest Service land on upper North Beaver Mesa is grazed by cows May 1 to June 15 and October 16 to November 25. The Forest Service allotments are under a rest/deferred rotation grazing system. Use generally occurs from June to mid-October.

Herd Unit Management Objectives

The targeted winter herd size is to have a herd population of 13,000 deer on the LaSal mountains. The major management problems on the unit are related to low deer numbers and a slow response in total numbers of deer to restricted harvest. However, this should be expected with the fawns/100 does ratio decreasing over the years and continuing to decrease over the last five years (1990-1995) to 48 (Evans et al. 1995). The average is still low at only 50 fawns/100 does through 1999.

Much of the winter range around the LaSal Mountains has had some kind of treatment to provide improved grazing and winter range conditions. The treatments are mainly pinyon-juniper chaining and seeding projects, roller-chopper treatments of old chainings, sagebrush removal, and contour trenching on the more eroded sites. A majority of the range trend studies established on the unit sample these treated types. Chained areas are found on North Beaver Mesa, Black Ridge, Amasas Back, Slaughter Flat, Buck Hollow, and the Two-Mile Chaining. Due to the wide difference in treatment years, from 1960 to the late 1970's, early 1980's, and early 1990's, there is considerable variability to what stage of succession they are in. Basically, on the areas studied except for Amasas Back, pinyon-juniper encroachment is not yet a problem. The key browse species is mountain or Wyoming big sagebrush which dominate most sites. The higher elevation treatments on North Beaver Mesa, Buck Hollow, and Two-Mile Chaining also have a variety of other browse and abundant quantities of grass. Treatments on critical deer winter range on Slaughter Flat, Upper Fisher Valley, and Black Ridge have a moderately dense stand of Wyoming big sagebrush (averaging 3,633 plants/acre) with an understory of crested wheatgrass. These sites are limited in their ability to produce other desirable browse.

The primary management objective of the DWR, BLM, and the Forest Service is to maintain the value of the chained areas for big game and livestock. Thinning existing regrowth and promoting the establishment and production of desirable browse and herbaceous species will result in long-term benefits for big game.

Study Establishment

Locations for herd unit 13A trend studies were determined in an Interagency meeting in Moab in 1986. However, they could not be incorporated into the range crew schedule until the summer of 1987. The studies were then established and read during June of 1987. Three studies were set up on big game summer range. In 2004, two summer range sites (#2 and #9) were dropped and replaced with two new sites (#16 and #17). Another three were established on transitional deer and elk ranges. The remaining seven studies sampled lower elevation critical deer winter range around the base of the mountain. Meetings again with Interagency personnel in the summer of 1994 determined that an additional two sites would need to be added because of the increases in the elk population. These studies are #14, Lower Lacky Fan, and #15, Hideout Mesa.

SUMMARY

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The higher elevation, transitional, and elk winter range on the south side of the LaSals was sampled with two transects in relatively recent chainings at Two Mile (site #1), and Buck Hollow (site #3). These sites have good potential. Presently, the grass component is fairly vigorous and productive. The rest/rotation spring cattle grazing schedule should leave adequate grass standing for elk fall/winter use. Browse is diverse on the Two Mile site with a cover value of almost 34%, but browse is still limited on Buck Hollow where total browse cover is only 4% with 77% of the cover coming from pinyon. There is generally light to moderate use. Vegetative trends are slightly up for Two Mile site and stable for the Buck Hollow site. The chainings in the foothills around the southwest slope are in a later stage of succession, with the study at Amasas Back (site #5) showing an increasing dominance of pinyon-juniper. These two species have increased their cover values from 34%, to 57%, to 61% of the browse cover in 2004. Diversity and density of desirable browse are limited on this area. Vegetative trend is slightly down and will probably continue until the area is retreated. Both Slaughter Flat (site #4) and Black Ridge (site #8) have very similar trends with declining populations of Wyoming big sagebrush and declining trends for herbaceous understory species.

Three studies were established on North Beaver Mesa. The low elevation site at Beaver Canyon (#13) receives light use in most years. This site was suspended in 1999. There is good winter range for deer and especially elk on the chaining at Below Polar Rim (site #12). Trends appears stable for browse and soil, but down for the herbaceous understory. The North Beaver Mesa site (#11) receives moderately heavy use by both cattle and elk. Soil and browse trend is stable, but herbaceous is slightly down

In the two large valleys on the north side of the LaSals, one study was established in Castle Valley at Round Mountain (site #7) and one in Upper Fisher Valley (site #10). These sites provide critical deer winter range and both have obviously continuing downward browse trends. The lower elevation site (#7) has a much lower density with moderate to heavy use and 76% of the population is dying. Grass cover for this site is only about 7%. However, 98% of this cover is contributed by cheatgrass. The browse population has gone down to only 680 plants/acre. Trend is down for all measured vegetative parameters. The Upper Fisher Valley site (#10) is also experiencing downward trends for browse and herbaceous species. There is not much cheatgrass cover on this site, as it contributes only 11% of the grass cover at this time. The major concern for this site is that broom snakeweed has increased from 5,720 in 1994 to 13,220 plants/acre in 1999. It decreased to 8,220 plants/acre in 2004, but could increase with increased precipitation. Soil trend is generally stable to slightly improving with large increases in cryptogamic cover in 1999 (1% to 11%), although this decreased again in 2004 (5%).

Another three studies were done on summer range. East LaSal Pass (#2) and Taylor Flat (#9) both showed relatively little big game use and were replaced with two new sites in 2004, Beaver Creek (#16) and Bar-A (#17). Soil and vegetative trends are stable. On Bald Mesa (#6), the black sagebrush appears stable and has a dense understory of grass and forb species. Abundant shrub and herbaceous forage is available. Bar-A (#17) is located on state land is heavily used by domestic livestock. The undesirable Rocky mountain iris is abundant and may decrease the grasses on the study site. Currently, 38% of the herbaceous cover is contributed by weedy increaser species.

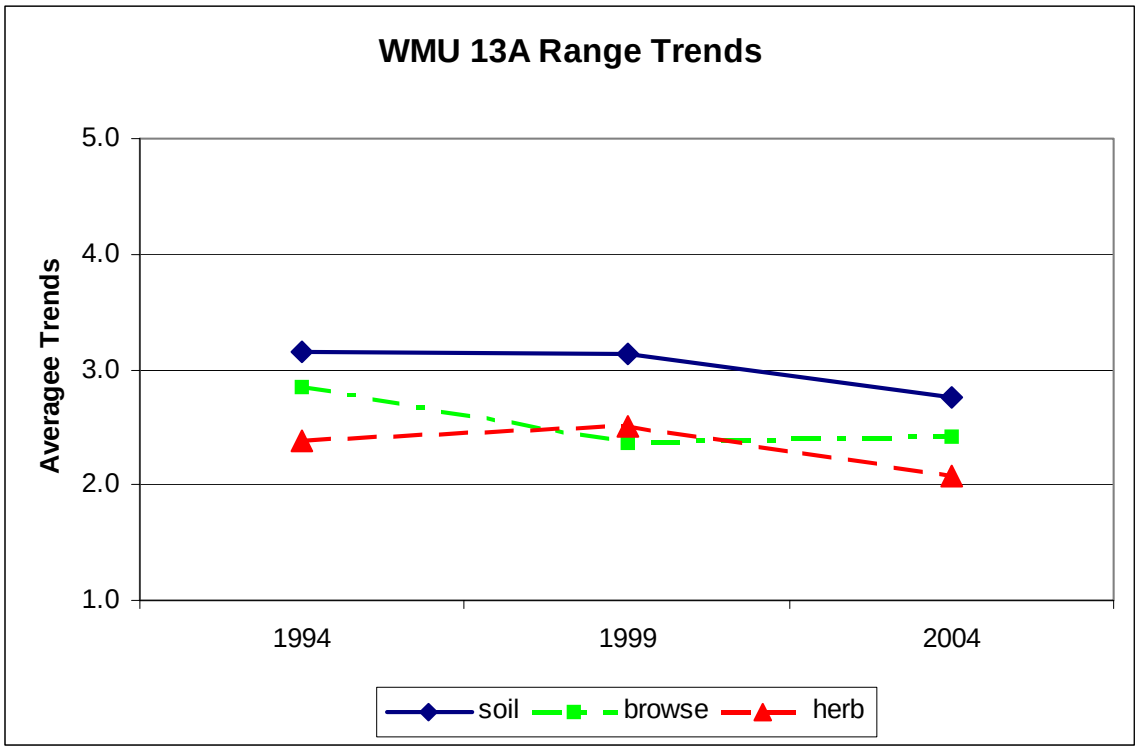
Two additional sites (Lower Lacky Fan #14 and Hideout Mesa #15) were added in 1994 after meetings with Interagency personnel. These sites were added to our study list because of the increases in the elk population. The Lower Lacky Fan (#14) site is located on the southwest slopes of the LaSal Mountains. This wintering area shows moderate use by elk and deer, and relatively high use by cows. The key browse species is Wyoming big sagebrush which is showing a significant downward trend in 1999, but has somewhat stabilized in 2004. Another area of concern for this site is the phenomenal increase in the broom snakeweed population,

although the density decreased greatly with drought conditions. Hideout Mesa (#15) is located within the southeast lower benches of the LaSal Mountains. Cattle use on the site is heavy, with moderate to light use for elk and deer. The trend for the key browse (mountain big sagebrush) is upward.

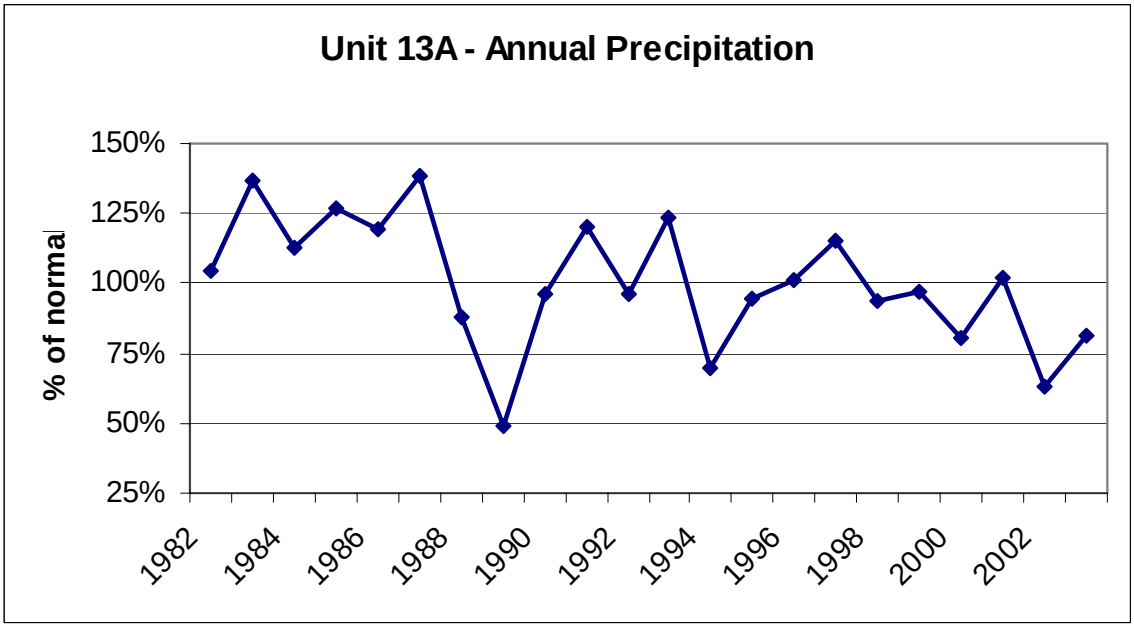
Due to major land use by livestock in the LaSal unit, strategies necessary to maintain the critical big game habitat are necessary. Monitoring range trends and grazing practices are especially important on those areas which show increasing livestock, deer and elk use trends. The Division must continue to work with land management agencies, especially the state, to help maintain and improve critically key areas. Cooperative habitat improvement projects have been successful in the past. Proposed followup roller-chopper treatments and seedings should be jointly funded to help mitigate costs.

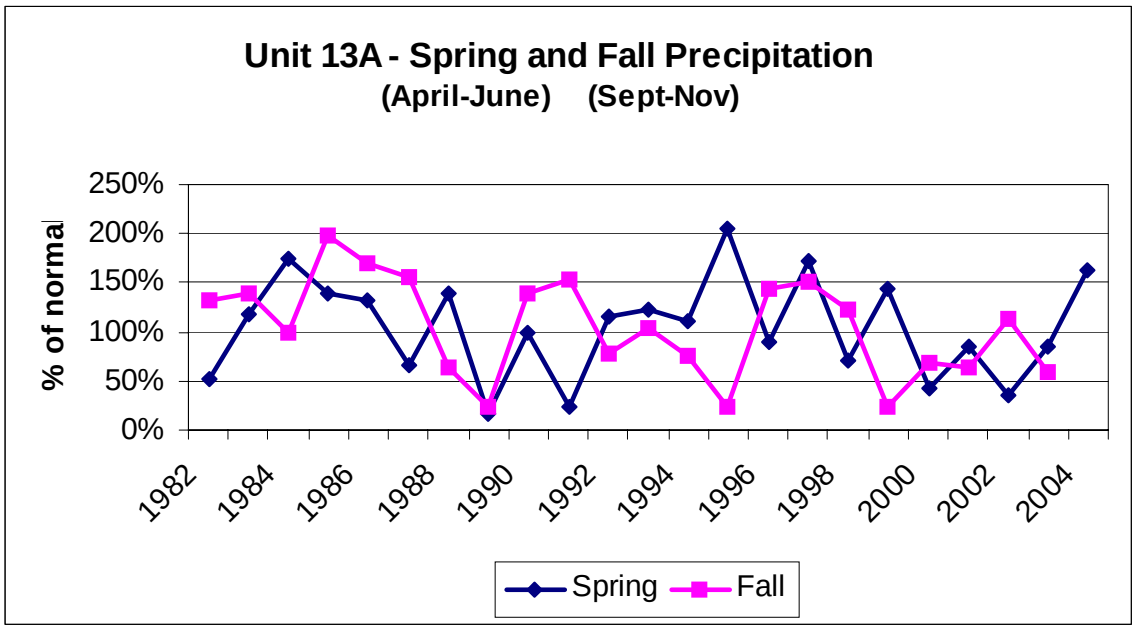
Average Range Trends -- WMU 13A La Sal Mountains

	1994	1999	2004
soil	3.2	3.1	2.8
browse	2.8	2.4	2.4
herb	2.4	2.5	2.1
	13 sites	14 sites	12 sites



Precipitation graphs for the La Sal Mountain unit. Data is percent of normal precipitation averaged for 3 weather stations on the La Sal Mountains, Moab, and Castle Valley (Utah Climate Summaries 2004).





Trend Summary

Site	Category		1994	1999	2004
13A-1 Two Mile chaining	soil	est	2	3	3
	browse	est	2	2	2
	herbaceous understory	est	1	3	4
13A-2 East La Sal Pass	soil	est	3	3	susp
	browse	est	3	3	
	herbaceous understory	est	3	3	
13A-3 Buck Hollow	soil	est	3	5	2
	browse	est	3	3	3
	herbaceous understory	est	3	3	3
13A-4 Slaughter Flat	soil	est	3	3	3
	browse	est	2	2	2
	herbaceous understory	est	3	1	2
13A-5 Amasas Back	soil	est	3	3	3
	browse	est	3	1	2
	herbaceous understory	est	1	2	2
13A-6 Bald Mesa	soil	est	3	3	2
	browse	est	3	3	3
	herbaceous understory	est	2	2	2
13A-7 Round Mountain	soil	est	2	2	3
	browse	est	1	1	1
	herbaceous understory	est	1	1	1
13A-8 Black Ridge	soil	est	3	2	3
	browse	est	1	1	1
	herbaceous understory	est	3	2	2

(1) = down, (2), slightly down, (3) = stable, (4) = slightly up, (5) = up
(est) = established, (n/a) = no trend, (susp) = suspended, (NR) = not read

Site	Category	1987	1994	1999	2004
13A-9 Taylor Flat	soil	est	3	4	susp
	browse	est	3	3	
	herbaceous understory	est	3	3	
13A-10 Upper Fisher Valley	soil	est	3	3	3
	browse	est	5	1	1
	herbaceous understory	est	3	2	2
13A-11 North Beaver Mesa	soil	est	4	3	3
	browse	est	4	4	3
	herbaceous understory	est	2	3	2
13A-12 Below Polar Rim	soil	est	4	3	3
	browse	est	4	3	3
	herbaceous understory	est	3	2	1
13A-13 Beaver Canyon	soil	est	5	susp	susp
	browse	est	3		
	herbaceous understory	est	3		
13A-14 Lower Lackey Fan	soil		est	4	2
	browse		est	1	3
	herbaceous understory		est	5	3
13A-15 Hideout Mesa	soil		est	3	3
	browse		est	5	5
	herbaceous understory		est	3	1
13A-16 Beaver Creek	soil				est
	browse				est
	herbaceous understory				est
13A-17 Bar-A	soil				est
	browse				est
	herbaceous understory				est

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